



Consumer Series

Type No.	Case Style	V _{CE5} [*] V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CB0} @ V _{CB} (mA) Max	H _{FE} @ I _C & V _{CE} (mA) (V) Min Max	V _{CE(SAT)} (V) & V _{BE(ON)} [*] (V) Max	V _{BE(SAT)} V _{BE(ON)} [*] @ I _C (mA) Min Max	C _{ob} (pF) Max	f _T (MHz) Min Max	I _C (mA) Max	t _{off} (ns) Max	NF (dB) Max	Test Condition	Process No.
CS9011	TO-92 (92)	40	30	5	100	39 198 1 5	0.3	0.75 10	3.5	150	1		4	(Note 4)	23
CS9012	TO-92 (92)	40	25	5	100	64 202 50 1	0.6	1.2 300							68
CS9013	TO-92 (92)	40	25	5	100	64 202 50 1	0.6	1.2 300							10
CS9014	TO-92 (92)	50	40	5	50	60 600 1 5	0.3	1 10	4.5	100	10		10	(Note 5)	07
CS9015	TO-92 (92)	50	40	5	50	60 600 1 5	0.3	1 10	6.0	100	10		10	(Note 5)	62
CS9016	TO-92 (92)	30	20	5	50	28 146 1 5	0.3	1 10	1.6	300	1		5	(Note 6)	49
CS9018	TO-92 (92)	30	15	5	50	28 146 1 5	0.3	1 10	1.7	400	2				43
ED1402	TO-92 (92)	35	30	4	10	110 810 2 5							10	(Note 7)	11
ED1502	TO-92 (92)	25	20	4	10	36 210 1 10				350	5				49
ED1602	TO-92 (92)	35	30	4	10	70 475 2 5							10	(Note 7)	69
ED1702	TO-92 (92)	30*	25	5	100*	40 106 0.5A 1 300 100 1	0.4	500							37
ED1802	TO-92 (92)	30*	25	5	100*	40 106 0.5A 1 300 100 1	0.4	500							77
SA733	TO-92 (94)	60	50	50	100	90 600 1 6	0.3	100 100	6	150	10		20		69
SA1015	TO-92 (94)	50	50	5	100	70 400 2 6 25 150 6	0.3	100 100	7				10		69

Consumer Series



Consumer Series

T-31-01

Consumers Series (Continued)

Type No.	Case Style	V _{CE} [*]		V _{CE0} (V) Min	V _{BE0} (V) Min	I _{CE} [*]		HFE @ I _C & V _{CE} (V) Min Max	V _{CE(SAT)} (V) & V _{BE(ON)} [*] (V) Max		C _{ob} (pF) Max	f _T (MHz) Min Max		t _{off} (ns) Max	NF (dB) Max	Test Condition	Process No.
		V _{CE0} (V) Min	V _{CE0} (V) Min			I _{CE0} (mA) Max	I _{CEB} (V) Max		V _{CE(SAT)} (V) Max	V _{BE(ON)} [*] (V) Min Max		I _C (mA) Max	I _C (mA) Max				
SC945	TO-92 (94)	60	50	5	5	100	50	90 600 1 6	0.3	100 100	4	150 10		20			11
SC1815	TO-92 (94)	60	50	5	5	100	50	70 400 2 6 25 150 6	0.3	100 100	4		10				11
NA11	TO-92 *	25	20	5	5	1μA	20	30 350 100 3	0.5	1.0 400 100	4.5	50 100				(Note 2)	10
NA12	TO-92 *	25	20	5	5	1μA	20	30 350 100 3	0.5	1.0 400 100	7	50 100				(Note 2)	68
NA31	TO-92 *	35	30	5	5	1μA	30	30 350 300 5	0.5	1.2 1.2A 300	10	20 300				(Note 2)	37
NA32	TO-92 *	35	30	5	5	1μA	30	30 350 300 5	0.5	1.2 1.2A 300	17	20 300				(Note 2)	77
NB111	TO-92 *	40	35	6	6	100	35	100 350 15 5	0.4	0.95 20 15	4	100 15				(Note 3)	11
NB121	TO-92 *	40	35	6	6	100	35	100 350 15 5	0.4	0.95 20 15	6	100 15				(Note 3)	69
NR421	TO-92 (96)	35	30	3	3	100	30	20 240 2 5	0.3	0.95 10 1.3	1.3	450 2				(Note 1)	42
NR431	TO-92 *	18	15	3	3	100	15	20 240 1 5	0.3	0.95 10 1.7	1.7	350 1				(Note 1)	43
SS8050	TO-92 (92)	40	25	6	6	100	35	45 5 1 85 300 100 1 40 800 1	0.5	1.2 800 50	9	100 50					37
SS8550	TO-92 (92)	40	25	6	6	100	35	45 5 1 85 300 100 1 40 800 1	0.5	1.2 800 50	15	100 50					77

*Case style means available in EBC or ECB pinouts.

TEST CONDITIONS:

- Note 1: I_C/I_B = 20
- Note 2: I_C/I_B = 40
- Note 3: I_C/I_B = 50
- Note 4: I_C = 1 mA, f = 1 MHz
- Note 5: I_C = 100 μA, f = 5 kHz
- Note 6: I_C = 1 mA, f = 100 MHz
- Note 7: I_C = 200 μA, f = 2 kHz

Consumers Series (Continued)

HFE Bins												
A	B	C	D	E	F	G	H	I	K	L	M	N
CS9011				39-60*	54-80	72-108	97-146	132-198				
CS9012			64-91*	78-112	96-135	118-166	144-202*					
CS9013			64-91*	78-112	96-135	118-166	144-202*					
CS9014	60-150	100-300										
CS9015	60-150	100-300										
CS9016			28-45*	39-60	54-80	72-108	97-146*					
CS9018			28-45*	39-60	54-80	72-108	97-146*					
ED1402	110-165*	150-225	290-450	410-810*								
ED1502	36-55*	48-75	84-127	105-210*								
ED1602	70-105*	90-140*	170-260	223-475*					106-150*	132-188	170-233	213-300*
ED1702									106-150*	132-188	170-233	213-300*
ED1802												

*Orders must contain at least two adjacent bins.

HFE Bins					
OR	YE	GR	B	C	D
SA1015	70-140*	120-240	200-400		
SC1815	70-140*	120-240	200-400		
SS9050			85-160	120-200	160-300*
SS9550			85-160	120-200	160-300*

*Orders must contain at least two adjacent bins.

T-31-01

Consumer Series

Consumer Series

T-31-01

Consumers Series (Continued)

HFE Bins										
	R	Q	P	K	G	H	I	J	X	Y
SA733	90-180	135-270	200-400	300-600						
SC945	90-180	135-270	200-400	300-600						
NA11					68-110*	100-160	140-240	200-350*	30-110	100-350
NA12					68-110*	100-160	140-240	200-350*	30-110	100-350
NA31					68-110	100-160	140-240*		30-110	100-350
NA32					68-110	100-160	140-240*		30-110	100-350
NA111						100-160	140-240	200-350		100-350
NA121						100-160	140-240	200-350		100-350

*Orders must contain at least two adjacent bins.

HFE Bins

	E	F	G	H	R	S	T
NR421	30-50*	45-75	68-110	100-160*	20-50*	45-110	100-240*
NR431	30-50	45-75	68-110	100-160*	20-50*	45-110	100-240*

*Orders must contain at least two adjacent bins.